

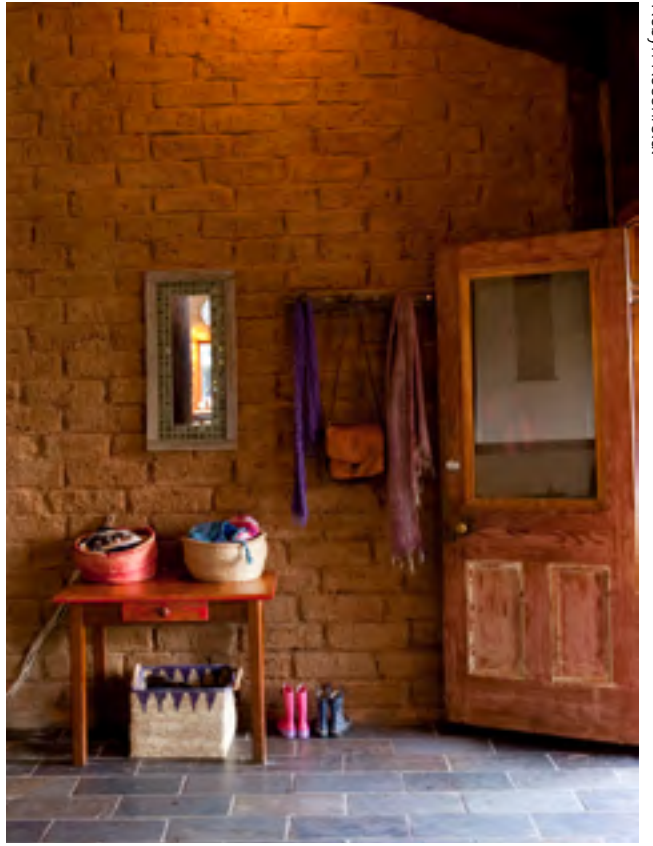


AUSTRALIAN PERMACULTURE

GROW . BUILD . EAT . THRIVE . NURTURE . DESIGN



TINY HOUSE LIVING - WILD HARVEST - EDIBLE FLOWERS - SLOW FASHION
NATURAL BUILDING MATERIALS - ROCKET STOVES - CROP SUCCESSION PLANNING



Clockwise from above left: Rammed earth walls; Mudbrick interior; Strawbale interior; Light Earth wall; Cob house.





USE AND VALUE RENEWABLE
RESOURCES AND SERVICES

YOUR COMPLETE GUIDE TO NATURAL BUILDING MATERIALS

Words by Adam Hickman

Whether you're thinking of becoming an owner-builder or retrofitting your home, you might be wondering which building materials will ensure an effective, beautiful and natural home. Some important factors to consider are: which resources are available to you locally (both on your property and in your area); cost of materials; thermal properties sought – passive solar design, thermal mass and insulation – and how these interact with each other; embodied energy involved; and the ease of material construction. With an introduction to these factors, you will be better equipped to begin choosing the materials that best suit your climate and house design.

LOCALLY SOURCED MATERIALS

Research your local resources – keep an eye out for timber mills (for free/cheap offcuts), dense forest, high-clay soil, quarries for stone, salvage yards, building-grade strawbale manufacturers, and any excess subsoil from building sites. Practise sustainable building methods.

If you're planning to use earthen materials, test the clay content in your own subsoil first. If you have a clay content of around twenty-five per cent, techniques such as cob, light earth (straw clay), rammed earth and mudbrick would be perfect options in your design.

Another great local resource is trees. Many native Australian hardwoods are suitable for building; ironbark, tallowwood, Victorian ash, blue gum and spotted gum are some. Once you've identified the species and its properties (such as strength and durability), the timber can be used for post and beam construction, or milled for weatherboards, cladding, floor joists and furniture.

COST

For many people, cost is the deciding factor in the choice of building materials. Some people assume that natural building is cheap, but this isn't necessarily true. The major costs

in building any home are usually labour and fixtures, such as kitchen, bathroom and internal fit-outs. For example, a straw bale house built by a natural builder can cost anywhere between \$1800–2000 m², with the bales only accounting for fifteen to twenty per cent of the cost. However, you can reduce costs by downsizing, sourcing your materials locally or from your property, using recycled materials, and inviting the community or volunteers to take part in building workshops at your place.

THERMAL PROPERTIES

When assessing thermal properties, passive solar design, thermal mass and insulation are major considerations. In an Australian climate, holding and storing heat and cold effectively, by using insulating materials on the external walls and thermal mass internally, can create an ideal environment for self-regulated temperature control.

Passive solar design is one way to harness the sun's energy for the heating and cooling of living spaces. This design practice aims to create a self-regulated temperature within the home, instead of installing non-renewable systems such as gas heating and air conditioning. This involves consideration of the orientation and internal layout of the house and, most importantly, the choice of building materials and their strategic placement. By constructing a passive solar design you are investing in lower energy bills and using the naturally occurring thermal properties of your materials. With an understanding of passive solar design you can begin to choose building materials.

Thermal mass stores, and releases or absorbs, heat. When a mass stores heat from a source (such as a fire or the sun), it slowly releases that energy back into the room once the ambient temperature drops below the mass temperature – sometimes delaying the heat flow through the home by up to twelve hours (lag). Materials that have a high thermal mass include brick, stone, cob, mud bricks, concrete and water. You can use these materials for internal structure and to build



USE EDGES AND
VALUE THE MARGINAL

WILD HARVEST

FIVE MODERN-DAY
HUNTER-GATHERERS
SHARE THEIR PASSION
FOR EATING FROM
THE WILD



Words by
Robyn Rosenfeldt



Maude Farrugia

ELKA MOSESHVILI

Eka is an urban forager. She wants to show people how they can maintain a normal lifestyle with a nine-to-five job and still lead a secret life as a forager.

Can you describe the foods you harvest from the 'wild' and how you do it?

I am lucky to live in Melbourne's northern suburbs (aka the European fruit forest), and I mainly forage for fruit as it's an easy and ubiquitous target. I follow the 'if it's facing the footpath it's yours' rule: as a tree grower myself, I expect anything facing the street to be picked. In summer/autumn most of my fruit was supplied by the neighbourhood: figs, prickly pears, mulberries, grapes, apples, pears and lemons. Another good rule is to ask the grower. Usually people are happy to share.

What inspired you to start harvesting your food in this way?

I grew up in Europe, where I spent summers at my grandparents' place climbing my favourite mulberry tree, or waiting for the first perfect fig to ripen. There were also many mushroom/berry picking trips, regular 'foraging' for raspberries from neighbours, and helping my grandparents with the harvest in autumn. Your childhood experiences shape your life, and it's up to you to choose how. I chose to be a forager.

What do you love most about foraging?

The creativity and learning opportunities. I spent the whole summer trying out different recipes and smoothie combinations. I also got into fermenting, which I feel is a natural extension of foraging and oversupply. My next steps are to learn the arts of pruning and grafting, to preserve my favourite trees and to get into local communities for swaps and harvests.

What differences have you noticed between foraged produce compared with other sources?

Once you taste real food it's hard to go back to commercially grown produce. Most of the time it tastes so much better, although sometimes it is an acquired taste. Sometimes you can accidentally discover a hidden or forgotten treasure – a rare specimen that is not commercially grown and difficult to find in the nurseries. You can step into a completely different world of gastronomy.

What positive impacts would there be if more people started to forage?

People could understand ingredients better if they could recognise the tree that the produce has come from.

What advice would you give to someone who wanted to start foraging?

Be observant and experimental: talk to people. If you're not sure what something is, just take a photo or collect a sample and ask around. To find the best foraging routes: take the roads less travelled, the front yards in the back streets; old laneways full of forgotten treasures; and go to the hidden corners of the parks.

If you have abundance, ferment it or make a jam. And please never be greedy – don't take something that you don't like just because it's free! The birds will have it eventually (further spreading the seeds).

For more information see [Feral Fruit Trees Melbourne](http://www.feralfruitmelbourne.wordpress.com) at www.feralfruitmelbourne.wordpress.com



PRODUCE NO WASTE

HOW TO MAKE A BOOMERANG BAG

Words by Boomerang Bags Photos by Robyn Rosenfeldt

The aim of Boomerang Bags is to minimise the use of plastic by sewing reusable bags from local, recycled materials. Making Boomerang Bags with your community is a great way to participate in a national initiative on a local level. It's an easy, free and environmentally friendly way to engage your local community and encourage others to reduce their use of plastic bags. The idea is to get a group of people together, sort through some old fabrics (linen cupboards or op shops are a great place to start), and meet up, with a couple of sewing machines, to make some great, recycled, reusable Boomerang Bags.

HOW DO YOU MAKE A BOOMERANG BAG?

What you will need:

- three pieces of fabric (something durable, colourful and washable, matching or contrasting)
- two handles (adjust the length to the size you prefer)
- one bag shape
- one calico pocket
- an iron
- thread and sewing pins
- a sewing machine, and ideally an overlocker.

Step one: sew the handles

Fold each of the handle pieces in half lengthways, and iron them flat. Open the folded piece and fold each side to the middle crease. Iron closed and make sure that the edges are together evenly. Sew the open edges of the handle together, and then sew along the closed edge of the handle so that each side of the handle is sewn.

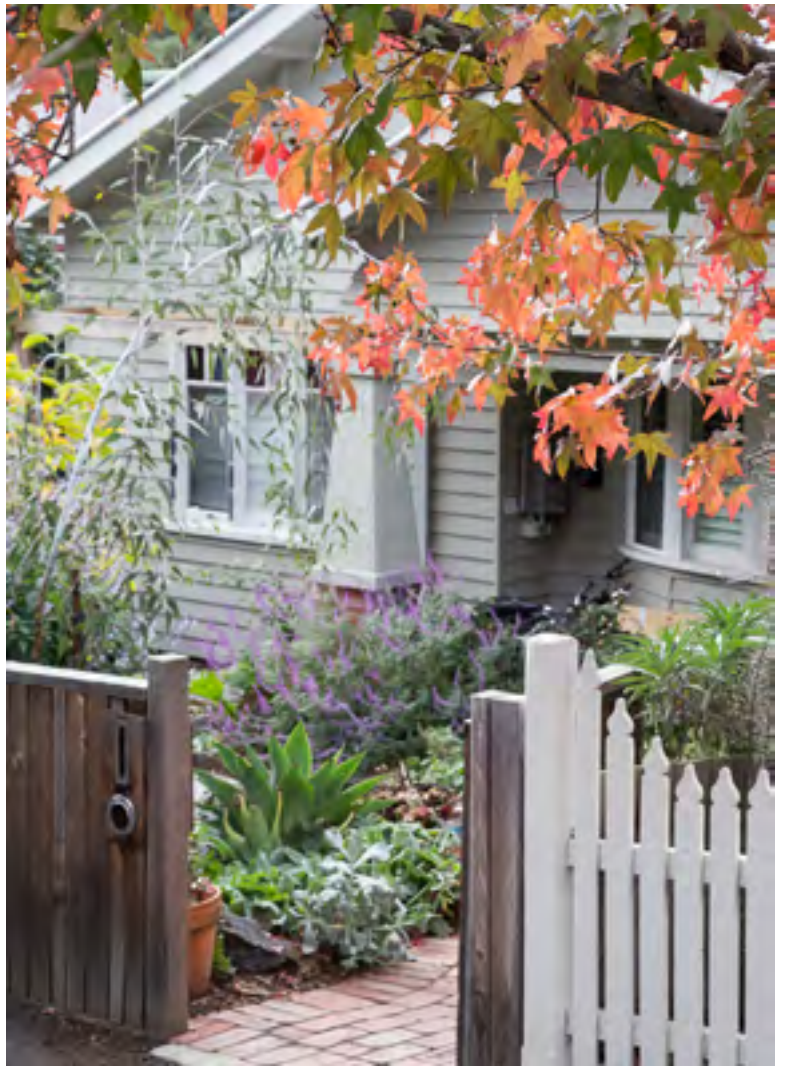
Step two: make the calico pocket

Fold three sides of the calico over by one centimetre. Fold the fourth side over twice, and then iron each of the sides flat. With the right side facing down, and the wrong side facing up, sew across the top of the pocket (where you made two folds).

Step three: pin the pocket on

With the right side up, pin the pocket onto the bag shape. Make





Front page, above to below: Living to north facing deck with recycled ironbark vertical screens; View of extension from the bottom of the garden.
This page, clockwise from top left: Window seat made from left over floorboards. Front garden from street, recycled brick path and timber fence; Kitchen with recycled timbers, light fittings and appliances; Disappearing through the kiddie trap door.

